

ORNITHOLOGY.—*A new race of Parus sclateri from the Sierra Madre del Sur of Mexico.*¹ ALDEN H. MILLER, Museum of Vertebrate Zoology, University of California, and ROBERT W. STORER, Museum of Zoology, University of Michigan. (Communicated by H. G. Deignan.)

In the Milton S. Ray collection of birds from Guerrero, Mexico, is an excellent series of *Parus sclateri* from the Sierra Madre del Sur of that state. These at once impressed the late Mr. Ray and the senior author as distinctly more yellowish or buffy in color than *Parus sclateri* as known from the mountains surrounding the Central Plateau of Mexico. Aware of the many chances for misinterpretation of these color differences in chickadees owing to make of skin and museum age of specimen, we have made particular effort to assemble and examine all available specimens and to make comparisons between birds taken at the same time of year and in the same period of years. Further need for careful weighing of the differences was emphasized by Traylor's (Fieldiana, Zool., 31: 272. 1949) recent inability to discern color differences between *P. s. sclateri* and *P. s. eidos* of Arizona.

A large part of the material available of this species consists of badly worn birds taken in the breeding season (April to July), poorly plumaged juveniles, or inadequately prepared specimens. Such material is essentially useless for meaningful color comparisons, which need to be carried out on fresh-plumaged birds taken in the period from September to December. Among specimens taken in the latter period, we see very little evidence of alteration in color with museum age. For example, birds taken from the vicinity of the Valley of Mexico before 1900 are essentially the same as those taken there in the past 10 years, the change, if any, being toward olive and away from purer gray in the older material. The Guerreran series has been taken in the past 13 years, but chiefly from 1941 to 1947, and its olive and yellow color would, accordingly, be expected to be at a minimum and to reflect closely the inherent condition of the birds. Moreover, the Guerreran skins, excellently prepared by W. W. Brown, have been compared with some typical *sclateri* prepared by the same collector.

We conclude therefore that the extremely yellowish and olive color of the Guerreran chickadees is a natural attribute of these birds and warrants description of them as—

Parus sclateri rayi, n. subsp.

Type.—Male, Mus. Vert. Zool. no. 111910, taken at Omilteme, Guerrero, Mexico, October 30, 1944, by W. W. Brown.

Diagnosis.—Similar to *Parus sclateri sclateri*, but breast Ivory Yellow rather than whitish and flanks between Grayish Olive and Olive Buff rather than Deep Olive Gray. Back often Grayish Olive and Deep Grayish Olive rather than Mouse Gray and Deep Olive Gray (capitalized color names are those of Ridgway).

Range.—Resident of the Sierra Madre del Sur in Guerrero, extending eastward into Oaxaca; also the vicinity of the Volcán de Colima in extreme southwestern Jalisco.

Specimens of P. s. rayi examined.—Omilteme, Guerrero, 5 (July, October, December, Mus. Vert. Zool.); Cuapongo, Guerrero, 7 (March, August, September, November, Mus. Vert. Zool.); Chilpancingo, Guerrero, 3 (March, May, Louisiana State Univ.); Cerro San Felipe, Oaxaca, 1 (August 31, U. S. Nat. Mus.); Sierra Nevada de Colima [Volcán de Colima], Jalisco, 13 (July, September, Amer. Mus. Nat. Hist.).

The isolation of the range of *P. s. rayi* of the Sierra Madre del Sur of Guerrero from that of *P. s. sclateri* in the mountains of Michoacán, Mexico, Morelos, and Puebla by the valleys of the Río Balsas and the Río Tepalcatepec may be presumed to be a factor in maintaining and perhaps also developing the racial differences noted. To the eastward there would appear to be a possible connection of populations of this high-zone species in southern Puebla and northern Oaxaca. The single example of *rayi* from Oaxaca seems properly allocated to this race but it is not an extreme example of it; an adequate representation of the species from Oaxaca should be examined in order better to establish the range of this form in that state.

The occurrence of *rayi* in the vicinity of the Volcán de Colima is unexpected on geographic grounds. The area is close to the Pacific coast as

¹ Received June 7, 1950.

is the Sierra Madre del Sur, but it is separated from that sierra by the lower Balsas Valley and is connected northeastward with the highlands of Michoacán, although the connection of chickadee habitat in that direction may be tenuous. The specimens from the Volcán de Colima are distinctly yellower than the birds of Michoacán, however, and although taken in 1905, are much yellower and more olive than even older fall-taken specimens from the state of Mexico. They seem to show less of the grayish element in the yellow and olive areas than the Guerreran specimens, but we suspect this difference is due to the museum age of the skins.

The most distinctive features of *rayi* are the olive and buff hues of the underparts. Some *P. s. sclateri* approach but do not quite equal the less extreme examples of *rayi* in this respect. The juvenal plumages of the two are not fully differentiated. The differentiation in back color of the two races is not as complete as that of the ventral coloration and alone it would permit separation of little more than 50 percent of the individuals from the ranges of the two subspecies.

Dimensions of *Parus sclateri* reveal slight geographic differences suggesting a cline of increasing size northward from the Orizaba district into the race *eidos*. However, *rayi* does not seem to be significantly different from *P. s. sclateri* in this respect.

Although it is not in the province of this paper to report at length on the status of *P. s. eidos*, we do note that fresh-plumaged material of *eidos*, which we have in abundance, contrasts with topotypical material of *P. s. sclateri* from the Orizaba district and with *sclateri* from the vicinity of Mexico City in the paler, less olivaceous color of the flanks and back. The greater amount of white beneath in *eidos* is difficult to ascertain where varying makes of skin are involved, but we think this character of less significance than the color of the flanks and back. Traylor (*loc. cit.*) may have been unduly concerned with this character in his recent evaluation of *eidos*. In our view, then, *eidos* is a recognizable subspecies showing a degree and consistency of difference found in many geographic races in the Paridae.

We are indebted to the following for the use of specimens: Herbert Friedmann and the United States National Museum, John T. Zimmer and the American Museum of Natural History, George H. Lowery, Jr., and Louisiana State University, Josselyn Van Tyne and the University of Michigan Museum of Zoology, and George M. Sutton. The race of chickadee here described is named in honor of Milton S. Ray, whose extremely valuable collection of birds has become a part of the Museum of Vertebrate Zoology through the generosity of the Ray family.

PROCEEDINGS OF THE ACADEMY AND AFFILIATED SOCIETIES

NEW MEMBERS OF THE ACADEMY

There follows a list of persons elected to membership in the Academy, by vote of its Board of Managers, since December 1, 1949, who have since qualified as members in accordance with the bylaws. The bases for election are stated with the names of the new members.

RESIDENT

Elected December 12, 1949

CARL I. ASLAKSON, commander, U. S. Coast and Geodetic Survey; in recognition of his work in the development of improved methods for surveying field work, the design of charts for the Army Weather Services, and particularly the development of special methods for precise alignment and the application of electronics to the improvement and extension of precise geodetic surveys.

HAROLD T. COOK, senior pathologist, U. S. Department of Agriculture, in recognition of his contributions to plant pathology and in particular his research on vegetable diseases.

HOWARD A. MEYERHOFF, permanent secretary, American Association for the Advancement of Science, in recognition of his contributions to the geology and physiography of the Western Hemisphere, particularly the geology and paleontology of the West Indies.

JOHN A. O'KEEFE, chief, research and analysis section, geodetic division, Army Map Service, in recognition of his development work in mathematics of projections, astronomical-geodetic applications, and geodetic application in guided-missile work.

DOUGLAS L. PARKHURST, chief, instrument division, U. S. Coast and Geodetic Survey, in recognition of his long and productive career in the design and production of scientific instruments, particularly the Parkhurst theodolite.